

September 18, 2020

VIA ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket 5043 - National Grid's Gas Long-Range Resource and Requirements Plan
Forecast Period 2020/21 to 2024/25
Responses to PUC Data Requests – Set 1**

Dear Ms. Massaro:

I have enclosed an electronic version of National Grid's¹ responses to the Public Utilities Commission's ("PUC") First Set of Data Requests in the above-referenced docket.²

The Company's responses to PUC 1-1 and PUC 1-5 are pending.

Thank you for your attention to this matter. If you have any questions, please contact me at 781-907-2121.

Very truly yours,



Raquel J. Webster

Enclosures

cc: Docket 5043 Service List
Leo Wold, Esq.
Al Mancini, Division
John Bell, Division

¹ The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

² Because of the COVID-19 Pandemic emergency period, the Company is providing a PDF version of the above-referenced transmittal. The Company is providing the PUC with one copy and, if needed, additional hard copies at a later date.

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Joanne M. Scanlon

September 18, 2020
Date

**Docket No. 5043 – National Grid’s Gas Long-Range Resource Plan
Service List as of 9/18/2020**

Name/Address	E-mail	Phone
Raquel Webster, Esq. National Grid 280 Melrose St. Providence, RI 02907	Raquel.webster@nationalgrid.com ;	781-907-2121
	Celia.obrien@nationalgrid.com ;	
	Jennifer.Hutchinson@nationalgrid.com ;	
	Joanne.scanlon@nationalgrid.com ;	
Elizabeth D. Arangio Theodore Poe MaryBeth Carroll National Grid 40 Sylvan Road Waltham, MA 02541	Theodore.poe@nationalgrid.com ;	
	Elizabeth.Arangio@nationalgrid.com ;	
	MaryBeth.Carroll@nationalgrid.com ;	
Leo Wold, Esq. Division of Public Utilities & Carriers	Leo.Wold@dpuc.ri.gov ;	401-780-2177
	John.bell@dpuc.ri.gov ;	
	dmacrae@riag.ri.gov ;	
	Al.mancini@dpuc.ri.gov ;	
James Crowley, Esq. Conservation Law Foundation 235 Promenade Street, Suite 560 Mailbox 28 Providence, RI 02908	jcrowley@clf.org	401- 228-1905

Jerome Mierzwa Exeter Associates	jmierzwa@exeterassociates.com;	
File an original & nine (9) copies w/: Luly E. Massaro, Commission Clerk Margaret Hogan, Commission Counsel Public Utilities Commission 89 Jefferson Blvd. Warwick RI 02888	Luly.massaro@puc.ri.gov;	401-780-2107
	Alan.nault@puc.ri.gov;	
	Patricia.lucarelli@puc.ri.gov;	
	Todd.bianco@puc.ri.gov;	
James Crowley, CLF	jcrowley@clf.org;	
Office of Energy Resources Christopher Kearns Nicholas Ucci	Christopher.Kearns@energy.ri.gov;	
	Nicholas.ucci@energy.ri.gov;	
	Carrie.Gill@energy.ri.gov;	

The Narragansett Electric Company
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PUC 1-2

Request:

Please identify the elements of the costs the company incurs to connect new customers to the natural gas system in Rhode Island.

Response:

Capital costs to connect new customers to the natural gas system in Rhode Island include: labor, material & handling (including, but not limited to, plastic and steel main/service pipe, fittings, couplings, valves, tracer wire), contractor & consultant expenses, transportation, permitting costs, and overheads. Contractor & consultant expenses include: police detail, installation and restoration services, design fees, and paving costs. In addition, the Company incurs operating expenses, including property and income taxes and depreciation, in support of the infrastructure used to supply natural gas to customers.

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PUC 1-3

Request:

What is the revenue per customer allowed by National Grid's current decoupling mechanism?

Response:

Please see Attachment PUC 1-3 for the revenue per customer benchmarks for the period September 2020 through August 2021.

Revenue Per Customer for RDM

	Approved Year 3	Sep-20 (a)	Oct-20 (b)	Nov-20 (c)	Dec-20 (d)	Jan-21 (e)	Feb-21 (f)	Mar-21 (g)	Apr-21 (h)	May-21 (i)	Jun-21 (j)	Jul-21 (k)	Aug-21 (l)	Total Sep 20- Aug 21 (m)
Residential non-heat														
(1)	Number of Customers	17,323	17,314	17,273	17,225	17,144	17,034	16,932	16,842	16,791	16,742	16,707	16,686	
(2)	Final Revenue Requirement	\$335,140	\$351,544	\$394,305	\$471,902	\$526,357	\$513,187	\$616,780	\$528,038	\$425,523	\$363,945	\$329,388	\$320,304	
(3)	Revenue Per Customer	\$19.34	\$20.30	\$22.82	\$27.39	\$30.70	\$30.12	\$36.38	\$31.35	\$25.34	\$21.73	\$19.71	\$19.19	\$304
Residential heat														
(4)	Number of Customers	223,841	224,029	224,567	225,660	227,181	228,469	229,303	229,423	229,132	228,571	227,825	227,183	
(5)	Final Revenue Requirement	\$5,468,994	\$6,050,013	\$10,481,978	\$16,861,833	\$22,443,277	\$24,293,562	\$21,565,258	\$15,769,762	\$9,310,665	\$6,530,253	\$5,564,621	\$5,354,088	
(6)	Revenue Per Customer	\$24.43	\$27.00	\$46.67	\$74.72	\$98.79	\$106.33	\$94.04	\$68.73	\$40.63	\$28.56	\$24.42	\$23.56	\$658
Small C&I														
(7)	Number of Customers	19,003	18,915	18,966	19,086	19,289	19,487	19,601	19,608	19,544	19,429	19,272	19,117	
(8)	Final Revenue Requirement	\$711,007	\$768,863	\$1,177,447	\$2,126,747	\$2,774,752	\$2,894,108	\$2,668,741	\$1,954,256	\$1,080,229	\$860,235	\$706,235	\$691,142	
(9)	Revenue Per Customer	\$37.41	\$40.64	\$62.08	\$111.42	\$143.85	\$148.51	\$136.15	\$99.66	\$55.27	\$44.27	\$36.64	\$36.15	\$952
Medium C&I														
(10)	Number of Customers	5,146	5,153	5,162	5,173	5,188	5,201	5,211	5,220	5,227	5,236	5,244	5,253	
(11)	Final Revenue Requirement	\$1,495,801	\$1,665,384	\$1,994,414	\$2,748,428	\$3,288,344	\$3,182,191	\$3,099,956	\$2,539,257	\$1,963,700	\$1,536,630	\$1,557,323	\$1,555,214	
(12)	Revenue Per Customer	\$290.67	\$323.18	\$386.36	\$531.30	\$633.83	\$611.84	\$594.88	\$486.44	\$375.68	\$293.47	\$296.97	\$296.06	\$5,121

PUC 1-4

Request:

Please describe (quantitatively and qualitatively) the gas system benefits realized by connecting new customers to the natural gas system in Rhode Island.

Response:

Connecting new customers to the natural gas system in Rhode Island is beneficial because it results in increased throughput, thereby spreading fixed costs over a larger customer base and reducing all rates for all (existing and new) customers. For reconciling factors such as the Gas Cost Recovery (“GCR”) factor, Distribution Adjustment Charge (“DAC”), and Energy Efficiency (“EE”) factor, increased throughput will result in a reduction in the fixed components of these factors.

For example, the components of the DAC (except for the Low-Income Discount Recovery Factor) are largely fixed in nature. Therefore, additional customers and increased throughput will reduce the DAC on a per-therm basis, thereby lowering customer bills from what they would have been without the addition of the addition of new customers. Furthermore, the addition of new customers also dilutes the fixed component of the GCR, assuming the Company does not need to purchase incremental pipeline capacity to serve these customers. Finally, assuming the EE budgets remain constant, the EE factors will decrease if the annual throughput increases.

Although base distribution rates do not change outside of a general rate case, incremental base distribution revenue from new customers increases the Company's return on equity (“ROE”) (assuming marginal revenue exceed marginal costs), which, all else being equal, lessens the need to request base distribution rate increases in the future. This benefit, derived from the addition of new customers, is driven by more efficient utilization of the natural gas system. To the extent that any increase in the ROE exceeds the defined threshold stipulated in the Company's Amended Settlement Agreement approved in R.I.P.U.C. Docket No. 4770, the benefit of additional customers is shared with all customers through the Earnings Sharing Mechanism.

In Attachment PUC 1-4, the Company provides a range of illustrative high-level bill reductions for a typical residential heating customer resulting from additional throughput assumed to be generated from additional customers, ranging from one percent to ten percent. This analysis is limited to impacts to the GCR, DAC, and EE factors.

GCR, DAC and EE Bill Reductions Resulting from Addition of New Customers
Residential Heating Customer

Section 1: Current Rates		(a)	(b)	(c)
<u>Current GCR</u>				
(1) Fixed Cost	Docket No. 4963	\$61,104,849		
(2) Variable Costs	Docket No. 4963	<u>\$81,765,646</u>		
(3) Total GCR Costs	Ln (1) + Ln (2)	\$142,870,496		
(4) Annual Throughput - Sales Only	Docket No. 4963	275,570,601		
(5) Fixed Factor	Ln (1) ÷ Ln (3)	\$0.2217		
(6) Variable Factor	Ln (2) ÷ Ln (3)	<u>\$0.2967</u>		
(7) Total	Ln (5) + Ln (6)	\$0.5185		
<u>Current DAC</u>				
(8) LIDRF (Variable)	Docket No. 4955	\$0.0138		
(9) Other Other DAC (Fixed)	Docket No. 4955	<u>\$0.0398</u>		
(10) Total DAC	Ln (8) + Ln (9)	\$0.0536		
(11) Residential Heating Throughput	Docket No. 4955	199,410,145		
DAC costs allocated to Residential Heating Customers				
(12) LIDRF Costs	Ln (8) x Ln (11)	\$2,751,860		
(13) Other DAC Costs	Ln (9) x Ln (11)	<u>\$7,936,524</u>		
(14) Total DAC Costs	Ln (12) + Ln (13)	\$10,688,384		
<u>Current EE</u>				
(15) EE Factor	Docket No. 4979	\$0.1011		
(16) Residential Heating Throughput	Docket No. 4955	199,410,145		
(17) Total Residential Heating EE Costs	Ln (15) x Ln (16)	\$20,160,366		
(18) Current GCR + DAC + EE	Ln (7) + Ln (10) + Ln (15)	\$0.6732		
Section 2: Illustrative Rates Resulting from Additional Customers				
		<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>
(19) Increase Customers / Usage		1%	5%	10%
(20) Increase Total Sales Usage	Ln (4) x (1+Ln (19))	278,326,307	289,349,131	303,127,661
(21) Increase Residential Usage	Ln (16) x (1+Ln (19))	201,404,247	209,380,652	219,351,160
<u>Illustrative GCR</u>				
(22) Fixed GCR	Ln (1) ÷ Ln (20)	\$0.2195	\$0.2112	\$0.2016
(23) Variable GCR	Ln (6)	<u>\$0.2967</u>	<u>\$0.2967</u>	<u>\$0.2967</u>
(24) Total GCR	Ln (22) + Ln (23)	\$0.5163	\$0.5079	\$0.4983
<u>Illustrative DAC</u>				
(25) LIDRF	Ln (8)	\$0.0138	\$0.0138	\$0.0138
(26) Other DAC	Ln (13) ÷ Ln (21)	<u>\$0.0394</u>	<u>\$0.0379</u>	<u>\$0.0362</u>
(27) Total DAC	Ln (22) + Ln (23)	\$0.0532	\$0.0517	\$0.0500
(28) Illustrative Residential EE	Ln (17) ÷ Ln (21)	\$0.1001	\$0.0963	\$0.0919
(29) Illustrative GCR + DAC + EE	Ln (24) + Ln (27) + Ln (28)	\$0.6696	\$0.6559	\$0.6402
(30) Illustrative Rates vs. Current Rates	Ln (29) - Ln (18)	(\$0.0036)	(\$0.0173)	(\$0.0330)
Section 3: Bill Impacts				
(31) Total Residential Heating Bill	Docket No. 4996	\$1,249	\$1,249	\$1,249
(32) Annual Usage	Docket No. 4996	845	845	845
(33) Annual Bill Saving	Ln (30) x Ln (32)	(\$3.03)	(\$14.59)	(\$27.86)
(34) % Annual Bill Savings	Ln (33) ÷ Ln (31)	-0.2%	-1.2%	-2.2%

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PUC 1-6

Request:

Please provide a description of the baseline for the FY21 GCR's NGPMP? Has the company considered a multi-year NGPMP (or multi-year performance indicators)? Why or why not?

Response:

The Company's FY21 NGPMP revenue and credit projections included in this docket are based upon last year's results set forth in the NGPMP Annual Report for the period April 2019 through March 2020, provided as Attachment JMP-4. The Company has considered a multi-year performance indicator; however, in recent years, significant pipeline restrictions and erratic natural gas pricing have led to difficulty in forecasting beyond the upcoming year, and, ultimately, in setting multi-year performance indicators.

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PUC 1-7

Request:

See page 51. Please provide the gas to electricity price ratio. Please provide the electricity to oil price ratio.

Response:

Below, the Company has updated the table on page 51 and page 1 of Chart III-B-3 to include the corresponding electricity prices (in \$/Dth) and the two price ratios. The historical electricity prices for Rhode Island are obtained from the U.S. Energy Information Administration (EIA).

<i>(Prices in 2019 \$/Dth)</i>									
Year	Natural Gas Residential Price	No 2 Distillate Residential Price by All Sellers	Electric Residential Price	Residential Gas-to-Oil Price Ratio	Residential Electric-to-Gas Price Ratio	Residential Electric-to-Oil Price Ratio	GDP (2009 Millions of \$)	House holds (thousands)	Non-Farm Employment (thousands)
1990	13.50	14.60	56.52	0.92	4.19	3.87	35616	377	454
1991	13.62	13.32	60.56	1.02	4.45	4.55	34372	381	424
1992	13.33	11.69	59.74	1.14	4.48	5.11	35063	384	424
1993	13.77	11.20	59.11	1.23	4.29	5.28	35716	387	430
1994	15.06	10.61	57.00	1.42	3.79	5.37	35826	391	434
1995	12.79	10.30	56.48	1.24	4.41	5.48	36505	395	439
1996	13.18	11.25	56.50	1.17	4.29	5.02	36926	401	441
1997	14.58	11.19	56.65	1.30	3.89	5.06	38989	406	450
1998	14.24	9.70	50.22	1.47	3.53	5.18	40360	411	458
1999	13.96	9.05	45.59	1.54	3.27	5.04	41651	411	466
2000	13.82	12.91	49.13	1.07	3.55	3.81	43474	410	477
2001	16.81	12.61	51.41	1.33	3.06	4.08	44386	407	479
2002	16.03	11.17	42.55	1.43	2.65	3.81	45877	410	479
2003	15.68	13.33	47.34	1.18	3.02	3.55	47804	411	484
2004	17.18	14.12	48.42	1.22	2.82	3.43	49762	412	488
2005	18.56	18.01	50.09	1.03	2.70	2.78	50378	411	491
2006	21.29	21.17	56.28	1.01	2.64	2.66	51304	411	493

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(Prices in 2019 \$/Dth)

Year	Natural Gas Residential Price	No 2 Distillate Residential Price by All Sellers	Electric Residential Price	Residential Gas-to-Oil Price Ratio	Residential Electric-to-Gas Price Ratio	Residential Electric-to-Oil Price Ratio	GDP (2009 Millions of \$)	House holds (thousands)	Non-Farm Employment (thousands)
2007	19.70	22.08	50.85	0.89	2.58	2.30	49843	411	492
2008	19.25	27.64	60.81	0.70	3.16	2.20	48263	414	481
2009	19.45	19.50	54.56	1.00	2.81	2.80	47708	414	459
2010	20.06	25.04	54.78	0.80	2.73	2.19	51466	415	458
2011	17.92	31.03	47.84	0.58	2.67	1.54	51270	417	461
2012	16.28	33.04	47.07	0.49	2.89	1.42	51641	421	465
2013	16.62	32.45	48.96	0.51	2.95	1.51	52085	425	471
2014	16.57	31.26	54.43	0.53	3.29	1.74	52133	428	479
2015	15.61	21.83	61.07	0.72	3.91	2.80	53095	428	485
2016	14.74	17.32	58.21	0.85	3.95	3.36	53091	427	490
2017	14.69	19.96	56.06	0.74	3.82	2.81	52989	426	493
2018	16.23	22.12	61.40	0.73	3.78	2.78	53622	426	496
2019	15.42	21.07	66.61	0.73	4.32	3.16	54464	429	501
2020	13.64	17.38	67.28	0.78	4.93	3.87	53470	431	495
2021	12.82	17.73	66.06	0.72	5.15	3.73	54933	432	496
2022	13.19	18.32	66.63	0.72	5.05	3.64	57588	434	506
2023	13.26	18.73	67.70	0.71	5.11	3.61	59640	436	513
2024	13.68	19.34	69.30	0.71	5.06	3.58	61109	438	515
2025	14.13	19.75	70.49	0.72	4.99	3.57	62449	440	517
2026	14.19	20.08	71.43	0.71	5.03	3.56	63820	442	519
2027	14.30	20.14	71.62	0.71	5.01	3.56	65280	443	520

Figure 1: A comparison of the natural gas, oil and electricity prices

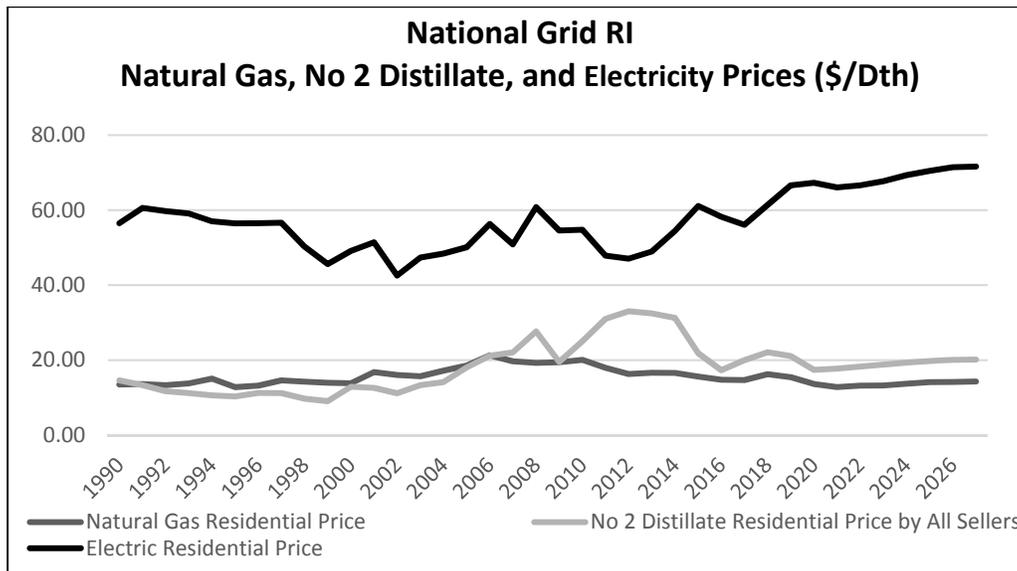


Figure 2: A comparison of the energy price ratios

